Rejections Over Koksbang

Claims 1-3, 6-10, 17 and 22-26 stand rejected under 35 U.S.C. § 102(b) over U.S. Patent 5,549,880 to Koksbang (the Koksbang patent). The Examiner noted that the Koksbang patent discloses lithium-vanadium oxide on the order of 0.1 to 5 microns and typically less than 10 microns. The Examiner further asserted that the methods disclosed in the Koksbang patent and Applicants' method were the same. In the Response After Final of February 25, 2002, Applicants addressed in detail that Applicants' method is **not** the same as the Koksbang method. To focus the present discussion, Applicants incorporate by reference the analysis of the differences between Applicants' methods and the method of the Koksbang patent from the Response After Final of February 25, 2002. If these issues regarding the methods are not resolved to the Examiner's satisfaction, Applicants respectfully request that the Examiner phone the undersigned attorney to discuss these issues further.

In the following analysis, Applicants focus on the ability to select particular particle distributions from a collection of particles having a wide distribution of particle sizes. Based on this analysis, the Koksbang patent does not prima facie anticipate or render obvious Applicants' claimed invention. Applicants respectfully request reconsideration of the rejection based on the following analysis.

To summarize Applicants' position, Applicants' methods for synthesizing metal vanadium oxides are materially different from the methods disclosed in the Koksbang patent as described in detail in the Response After Final of February 25, 2002. Applicants believe that the only reasonable interpretation of the Koksbang patent is that the Koksbang materials involve a collection of particles having a particle size ranging from roughly 5 microns to about 0.1 microns. This range necessarily leads to an average particle size of significantly larger than 1 micron. This interpretation is discussed in detail in the Response After Final of February 25,

2002. Applicants believe that these positions alone are enough to establish that the Koksbang patent does not anticipate Applicants' claimed invention.

Next, Applicants turn to the issue of selecting portion of a particle collection to form a resulting collection of particles with a desired particle size distribution. As Applicants understand it, the Examiners' position is that such a procedure can be used to select particles with a narrow particle size distribution from another collection of particles. However, for submicron particles, such a process was not possible as of the filing date of the parent application.

"In rejecting claims under 35 U.S.C. §103, the examiner bears the initial burden of presenting a prima facie case of obviousness." In re Rijckaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

Patentability issues regarding properties of compositions of matter were considered explicitly in the context of **chemical powders** in In re Grose, 201 USPQ 57 (CCPA 1979). The specific issue in the Grose case was the crystal structure of zeolites in a collection of zeolite particles. The zeolites in the Gross case were collections of particles, i.e., a powder. The relevant issues are well stated in In re Grose:

> Though nonobviousness of appellants' process for preparing their claimed composition would not be determinative of nonobviousness of the composition, a holding that the composition would have been nonobvious would require that the prior art fail to disclose or render obvious a process for preparing it.
>
> > [I]f the prior art of record fails to disclose or render obvious a method for making a claimed compound, at the time the invention was made, **it may not be legally concluded that the compound itself is in the possession of the public**. In this context, we say that the absence of a known or obvious process for making the claimed compounds overcomes a presumption that the compounds are obvious. ***
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> In re Hocksema, 55 CCPA 1493, 1500, 399 F.2d 269, 274, 158 USPQ 596, 601 (1968)(foot note omitted). **Failure of the prior art to disclose or render obvious a method for making any composition of matter, whether a compound or a mixture of compounds like a zeolite, precludes a conclusion that the compound would have been obvious.**

In re Grose, 201 USPQ at 63-64 (emphasis added). Applicants note that in In re Grose the zeolites had the same chemical formula as the prior art zeolites and only differed in crystal structure.

"No reason exists for applying the law relating to structural obviousness of those compounds which are homologs or isomers of each other to this case. **When the PTO seeks to rely upon chemical theory, in establishing a prima facie case of obviousness, it must provide evidentiary support for the existence and meaning of that theory.** In re Mills, 47 CCPA 1185, 1191, 281 F.2d 218, 223-224, 126 USPQ 513, 517 (1960)." In re Grose, 201 USPQ at 63 (emphasis added).

Applicants do not believe that the Examiner has provided a basis for asserting that a collection of particles with a submicron average particle size and a narrow particle size distribution can be selected from another collection of particles. Thus, the claims are not prima facie anticipated. Nevertheless, Applicants provide evidence that such a particle separation could not be performed. In particular, Applicants have provided information downloaded from the website of Millipore Corporation. Millipore is a supplier of State-of-the-Art particle filtration technology for the chemical-mechanical polishing field. The information from the web site is dated after the filing date of the parent patent application.

Small sizes and uniformity are desirable features for particles using in surface polishing. The information from the Millipore web site indicates that submicron particles cannot be separated from other particles of a collection. Specifically, a plot of removal capability of Millipore's line of Planargard™ filters is enclosed that is used to filter surface polishing slurries. It would seem from these plots that these filters are not effective for separating particles somewhat larger than a micron from submicron particles.

In addition, there is no disclosure of record describing how to apply filtration technology to metal vanadium oxide particles. Furthermore, there is no disclosure of record suggesting to separate collections of metal vanadium oxide particles to select a desired portion of

the particles. Similarly, there is no evidence of record that any separation technology existed to form the claimed particle collections from the materials described in the Koksbang patent. If the Examiner knows of such evidence or has personal knowledge of such separation capability, Applicants respectfully request documentation of such evidence, such as in the form of an affidavit, to provide Applicants an opportunity to respond. In summary, there is no evidence at all that separation technologies would be considered to form the claimed particles collections and if used, would be effective to form the claimed particle collections.

Since the present claims are not prima facie anticipated, Applicants respectfully request withdrawal of the rejections of claims 1-3, 6-10, 17 and 22-26 stand rejected under 35 U.S.C. § 102(b) over the Koksbang patent.

CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office, Fax No. 703-872-9311 on the date shown below thereby constituting filing of same.

Shari R. Thorndike

June 20, 2002
Date

Shari R. Thorndike